

CLAIMS

1. A heat-resistant self drilling tapping screw for drilling a stainless steel member; the heat-resistant self drilling tapping screw comprising:

a drill part;

a tapping screw part connected to the drill part;

a fastening screw part connected to the tapping screw part; and

a screw head part for conducting and providing a turning force; wherein

the drill part and the tapping screw part are made of a high-carbon chrome series stainless steel of heat-resistant steel; and

the fastening screw part including the screw head part is made of a nickel series stainless steel.

2. The heat-resistant self drilling tapping screw as claimed in claim 1, wherein the drill part and the tapping screw part connected to the drill part are SUS-420J2 with the carbon content being substantially equal to the carbon content (0.32 to 0.38) corresponding to S-35C or the carbon content (0.35 to 0.41) corresponding to S-38C in JIS-G4051 (carbon steels for machine structural use).

3. The heat-resistant self drilling tapping screw as claimed in claim 1 or 2, wherein the nickel series stainless steel of the fastening screw part including the screw head part is a stainless steel satisfying high corrosion-resistivity and high tensile force guaranteeing ISO A-2-70 and A-4-70 after thread rolling.

4. The heat-resistant self drilling tapping screw as claimed in any one of claims 1 to 3, wherein the fastening screw part including the screw head part is made of SUS-305J1 or SUS-316.

5. The heat-resistant self drilling tapping screw as claimed in any one of claims 1 to 4, wherein the drill part and the tapping screw part connected to the drill part are quench hardened by high-frequency heating.

6. The heat-resistant self drilling tapping screw as claimed in any one of claims 1 to 5, wherein the chrome series stainless steel configuring the drill part and the tapping screw part connected to the drill part, and the nickel series stainless steel configuring the fastening screw part including the screw head part are integrally bonded into a rivet shape by resistance welding, to form each of the parts.